

What is Claimed is:

1. A graphical user interface for a process control system that includes a plurality of data inputs and a variety of alarms for said data inputs, the interface comprising:  
  
simultaneous display of multiple alarms wherein the each of alarm displays provide indicia of alarm priority and alarm age.
2. The interface of claim 1 wherein each of the alarm displays comprises contextual information about the alarm, the interface further comprising simultaneous display of indicia of all other active alarms in at least one of a common control module, a common equipment module or a common process unit.
3. The interface of claim 1 further comprising a listing of all active alarms along with alarm age profiles for each active alarm.
4. The interface of claim 3 wherein the listing of all active alarms is divided into at least one of common control modules, common equipment modules or common process units.
5. The interface of claim 4 wherein the listing of all active alarms comprises a total active alarm listing and at least three sub-categories of alarms divided by one of common control modules, common equipment modules or common process units.

6. The interface of claim 1 further comprising a plurality of different operator definable display alerts for augmenting the simultaneous display of multiple alarms.

7. The interface of claim 6 wherein one type of display alert that comprises setting a target display alert for a target range for a process variable wherein the target display alert may begin immediately or after a delay and continue indefinitely or for a limited time and the target display alert provides an alarm when the target range is achieved or when the target range is not achieved within a preselected time period.

8. The interface of claim 6 wherein one type of display alert that comprises setting a range display alert for a desired value range for a process variable wherein the range display alert may begin immediately or after a delay and continue indefinitely or for a limited time and the range display alert provides an alarm when the process variable falls outside of the desired value range.

9. The interface of claim 6 wherein one type of display alert comprises setting a ramp display alert for a desired accumulated value for an output process variable wherein the ramp display alert provides an alarm when the actual accumulated value for the output process variable approaches and exceeds the desired accumulated value.

10. The interface of claim 1 wherein the alarms are color coded to provide an indication of alarm priority and alarm age.

11. The interface of claim 1 further comprising a details display for each alarm comprising information about the alarm and information about other alarms active in the same control module.

12. The interface of claim 11 further comprising parent control objects and means to navigate displays providing more information about the parent control objects.

13. The interface of claim 1 wherein the interface is adaptable for PDA or handheld devices.

14. The interface of claim 6 further comprising summary displays for a plurality of the display alerts and the current status of all display alerts.

15. The interface of claim 1 further comprising hierarchical alarm profile displays indicating where and when a heaviest alarm activity is occurring.

16. The interface of claim 1 comprising graphical displays of active alarm counts vs. alarm age profiles.

17. The interface of claim 16 wherein the alarm profiles may be defined by at least one of time span, plant area, process unit and equipment modules.

18. A graphical user interface for a process control system that includes a plurality of data inputs and a variety of alarms for said data inputs, the interface comprising:

simultaneous display of multiple alarms wherein the each of alarm displays provide indicia of alarm priority and alarm age,

a plurality of alarm profiles wherein alarms are grouped by at least one of time span, plant area, process unit and equipment module,

the alarm profiles being super imposable on a process graphic display so that alarm profiles can be seen in the spatial context of equipment schematics depicted in the process graphic display.

19. A machine readable medium having instructions stored thereon that, when executed, causes a machine with at least one monitor to:

generate a graphical user interface for a process control system that includes a plurality of data inputs and a variety of alarms for said data inputs, the interface including

simultaneous display of multiple alarms wherein the each of alarm displays provide indicia of alarm priority and alarm age,

each of the alarm displays comprising contextual information about the alarm, the interface further comprising simultaneous display of indicia of all other active alarms of at least one of a common control module, a common equipment module or a common process unit,

a plurality of alarm profiles wherein alarms are grouped by at least one of time span, plant area, process unit and equipment module,

the alarm profiles being super imposable on a process graphic display so that alarm profiles can be seen in the spatial context of equipment schematics depicted in the process graphic display.

20. The machine readable medium of claim 19 further having instructions stored thereon that, when executed, causes the machine to display a plurality of different operator definable display alerts for augmenting the simultaneous display of multiple alarms.